

21 and the second abutting surface 22 may be end surfaces directed to the shaft 11 of the footrest member 12.

[0087] Although the first direction is defined as a direction perpendicular to the opposite direction between the moving part 3 and the footrest part 4 in the aforementioned embodiments, the first direction may be a direction intersecting with the opposite direction between the moving part 3 and the footrest part 4. Also, although the second direction is defined as a direction perpendicular to the opposite direction between the moving part 3 and the footrest part 4 and the first direction in the aforementioned embodiments, the second direction may be a direction intersecting with the opposite direction between the moving part 3 and the footrest part 4 and the first direction.

[0088] In the aforementioned embodiment, the following part 30 is disposed on the side of the moving part 3, and the abutting part 20 is disposed on the side of the footrest part 4. The arrangement may be performed in the opposite manner to the above arrangement. That is, the abutting part 20 may be disposed on the side of the moving part 3, and the following part 30 may be disposed on the side of the footrest part 4. In this case, the support parts 50, 150 support the abutting part 20. Furthermore, the aforementioned embodiment describes that the support parts 50, 150 are provided in the moving part 3 side; however, the support parts 50, 150 may also be provided in the footrest part 4 side.

[0089] Subsequently, Embodiment 1 and Embodiment 2 will be described.

[0090] FIG. 11 is a graph illustrating a magnitude of a reaction force with respect to a rotation angle of the footrest member 12 in Embodiment 1. The graph is a measurement result in the case of using the foot-operated pointing device 1 of the first embodiment. A horizontal axis of the graph represents a rotation angle (unit is “degree”) of the footrest member 12 in the case of executing the first rotation operation A or the third rotation operation C from the neutral state. A vertical axis represents a reaction force (unit is “kgf”) at a position of 100 mm from the shaft 11 toward the one end 13, or from the shaft 11 toward the other end 14.

[0091] While the following part 30 is abutting on the first abutting surface 21, a reaction force at a gentle slope also increases according to an increase in the rotation angle. When the rotation angle reaches near 5 degrees, the following part 30 is transferred from the first abutting surface to the second abutting surface, and a reaction force, which has been in the range of 0.5 to 1.0 kgf, sharply increases to about 2.0 kgf to 2.5 kgf. At this time, a click feeling is provided to the user. Thereafter, while the following part 30 is abutting on the second abutting surface 22, a reaction force at a steep slope also increases according to an increase in the rotation angle.

[0092] FIG. 12 is a graph illustrating a magnitude of a reaction force with respect to a rotation angle of the footrest member 12 in Embodiment 2. The graph is a measurement result in the case of using the foot-operated pointing device of the second embodiment. Since horizontal and vertical axes of the graph are identical to those of FIG. 11, a detailed description will be omitted.

[0093] While the following part 30 is abutting on the first abutting surface 121, a reaction force at a gentle slope also increases according to an increase in the rotation angle. When the rotation angle reaches near 3 degrees, the following part 30 is transferred from the first abutting surface 121 to the second abutting surface 122, and a reaction force,

which has been in the range of about 1.0 kgf to 1.5 kgf, increases to about 2.0 kgf. Thereafter, while the following part 30 is abutting on the second abutting surface 122, a reaction force at a steep slope also increases according to an increase in the rotation angle. When the rotation angle reaches almost 4.5 degrees, the following part 30 is transferred from the second abutting surface 122 to the third abutting surface 123, and a reaction force, which has been in the range of about 3.0 kgf to 3.5 kgf, sharply decreases to about 0.5 kgf to 1.0 kgf. At this time, a click feeling is provided to the user. Thereafter, while the following part 30 is abutting on the third abutting surface 123, a reaction force at a gentle slope also increases according to an increase in the rotation angle.

REFERENCE SIGNS LIST

- [0094] 1 foot-operated pointing device
 - [0095] 2 base
 - [0096] 3 moving part
 - [0097] 4 footrest part
 - [0098] 5 reaction force applying part
 - [0099] 11 shaft
 - [0100] 12 footrest member
 - [0101] 13 one end
 - [0102] 14 the other end
 - [0103] 15 first detection part
 - [0104] 16 second detection part
 - [0105] 17 controller
 - [0106] 18 storage part
 - [0107] 20 abutting part
 - [0108] 21 first abutting surface
 - [0109] 22 second abutting surface
 - [0110] 30 following part
 - [0111] 40 biasing member
 - [0112] 50,150 support part
 - [0113] 60 adjusting part
1. A foot-operated pointing device comprising:
 - a base;
 - a moving part oppositely disposed on the base and moveable along a top surface of the base;
 - a footrest part oppositely disposed on the moving part and including a footrest member;
 - a first detection part configured to detect a movement of the moving part;
 - a second detection part configured to detect a rotation of the footrest member with respect to the moving part; and
 - a controller configured to instruct movement of a pointer based on a detection value from the first detection part and instruct a click when a detection value from the second detection part becomes equal to or greater than a first threshold value and thereafter, becomes equal to or less than a second threshold value,
 - wherein the
 - footrest member rates with respect to the moving part around a first direction intersecting with an opposite direction between the moving part and the footrest part, and has one end and the other end in a second direction intersecting with the opposite direction and the first direction.
 - 2.-7. (canceled)
 8. The foot-operated pointing device according to claim 1, further comprising a reaction force applying part configured to apply a reaction force to the rotating footrest part,